

CLAIMS

1. A method of analyzing organic chemical substances comprising: subjecting a sample for analysis prepared beforehand by extracting organic chemical substances from a target sample to fractionation by a liquid chromatography; adding a different solution to said fractionated elute containing an analysis target substance; continuously adsorbing said analysis target substance onto a solid-phase cartridge from the liquid chromatograph; and eluting the analysis target substance which has been adsorbed on said solid-phase cartridge with an eluent directly into a storage chamber of a gas chromatograph to analyze by a gas chromatography.

2. A method of analyzing organic chemical substances comprising: subjecting a sample for analysis prepared beforehand by extracting organic chemical substances from a target sample to fractionation by a liquid chromatography; passing said fractionated elute containing an analysis target substance through a solid-phase cartridge; continuously adsorbing said analysis target substance onto said solid-phase cartridge; and eluting the analysis target substance which has been adsorbed on said solid-phase cartridge with an eluent directly into a storage chamber of a gas chromatograph to be analyzed by a gas chromatography.

3. The method of analyzing organic chemical substances of claim 1 or claim 2, wherein on eluting the analysis target substance which has been adsorbed on said solid-phase cartridge with an eluent directly into

a storage chamber of a gas chromatography, a derivatization reagent is dissolved in said eluent, the resultant solution together with the analysis target substance is injected into a storage chamber of a gas chromatograph, after the analysis target substance is derivatized in the storage chamber, the derivative is analyzed by a gas chromatography.

4. The method of analyzing organic chemical substances of claim 1 or claim 2, wherein the analysis target substance which has been adsorbed on said solid-phase cartridge is eluted with an eluent, said eluent is then passed through a separate solid-phase cartridge and an effluent with dirt having been removed is injected into a storage chamber of a gas chromatograph to be analyzed by a gas chromatography.

5. The method of analyzing organic chemical substances of claim 4, wherein on eluting the analysis target substance which has been adsorbed on said solid-phase cartridge with an eluent, passing said eluent through a separate solid-phase cartridge and injecting an effluent with dirt having been removed into a storage chamber of a gas chromatograph, a derivatization reagent is dissolved in said effluent, the resultant solution together with the analysis target substance is injected into a storage chamber of a gas chromatograph, after the analysis target substance is derivatized in the storage chamber, the derivative is analyzed by a gas chromatography.

6. The method of analyzing organic chemical substances of any

one of claims 1-5, wherein said analysis target substance is of from one sort to 20 sorts.

7. An apparatus for analyzing organic chemical substances comprising: a liquid chromatograph where a sample for analysis prepared by extracting organic chemical substances contained in a target sample is introduced for fractionation; a first providing means for automatically providing to the elute containing analysis target substance fractionated by the liquid chromatograph a first solution which is different from said elute based on an elution time of said analysis target substance; a solid-phase cartridge for adsorbing the analysis target substance transferred by a mixed liquid of said first solution and the elute fractionated by the liquid chromatograph; a second providing means for automatically providing an elute to elute the analysis target substance which has been adsorbed on the solid-phase cartridge; and a syringe needle connected to an exit of said solid-phase cartridge to introduce said eluted analysis target substance to a gas chromatograph.

8. The apparatus for analyzing organic chemical substances of claim 7, wherein besides a first pathway to adsorb the analysis target substance transferred by a mixed liquid of said first solution and the elute fractionated by the liquid chromatograph onto the solid-phase cartridge, a second pathway is separately provided to elute the analysis target substance which has been adsorbed on the solid-phase cartridge and introduce to said gas chromatograph; and said solid-phase cartridge can freely be assembled

or disassembled with two pathways respectively.

9. The apparatus for analyzing organic chemical substances of claim 8, wherein a switching valve is provided to switch the providing state into the first providing state for providing and adsorbing the analysis target substance transferred by a mixed liquid of said first solution and the elute fractionated by the liquid chromatograph onto said solid-phase cartridge, and into the second providing state for providing said eluent to said solid-phase cartridge to elute the analysis target substance which has been adsorbed on the solid-phase cartridge and introducing to said gas chromatograph.

10. The apparatus for analyzing organic chemical substances of any one of claims 7-9, wherein said gas chromatograph is provided inside a vaporizing chamber with a storage chamber containing no scavenger capable of temporarily storing the analysis target substance introduced from said syringe needle,.

11. An apparatus for analyzing organic chemical substances comprising: a liquid chromatograph where a sample for analysis prepared by extracting organic chemical substances contained in a target sample is introduced for fractionation; a detecting means for detecting the transferred analysis target substance fractionated by the liquid chromatograph; an exhaust address switching valve for switching exhaust address from an exhaust pathway side into a main pathway side based on a detected signal

for the analysis target substance by the detecting means; a solid-phase cartridge provided in said main pathway to adsorb the analysis target substance transferred together with the elute being switched into the main pathway by said exhaust address switching valve; a providing means for providing the eluent to introduce the analysis target substance which has been adsorbed on said solid-phase cartridge into the gas chromatograph; and a syringe needle capable of moving up and down connected to the exit of said solid-phase cartridge to introduce the analysis target substance eluted together with said eluent to a gas chromatograph.

12. The apparatus for analyzing organic chemical substances of claim 11, wherein besides the first pathway to adsorb the analysis target substance transferred together with said elute onto said cartridge, a second pathway is separately provided where the analysis target substance which has been adsorbed on said solid-phase cartridge is eluted with an eluent introduced from the providing means, to be introduced into the gas chromatograph, and said solid-phase cartridge being capable of freely assembled and disassembled with the two pathways respectively.

13. The apparatus for analyzing organic chemical substances of claim 11, wherein the providing state switching valve is provided for the providing state into the first providing state to supply and adsorb the analysis target substance transferred together with said elute onto said solid-phase cartridge, and into the second providing state to supply said eluent to said solid-phase cartridge to elute the analysis target substance

which has been adsorbed on said solid-phase cartridge and introduce to said gas chromatograph.

14. The apparatus for analyzing organic chemical substances of any one of claims 11-13, wherein said gas chromatograph is provided inside a vaporizing chamber, with a storage chamber containing no scavenger capable of temporarily storing the analysis target substance introduced from said syringe needle, inside a vaporizing chamber.